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*AF/1764*

IN THE UNITED STATES PATENT OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

|                               |   |                              |
|-------------------------------|---|------------------------------|
| In re Patent Application of:  | ) |                              |
|                               | ) |                              |
| CRAIG N. EATOUGH, ET AL.      | ) | Docket: 8333.Appeal          |
|                               | ) |                              |
| Serial No.: 09/954,603        | ) |                              |
|                               | ) | Art Unit: 1764               |
| Filed: September 17, 2001     | ) |                              |
|                               | ) |                              |
| For: CLEAN PRODUCTION OF COKE | ) | Examiner: ALEXA A. DOROSHENK |
|                               | ) |                              |

**LETTER OF TRANSMITTAL AND**  
**RESPONSE TO NOTICE OF NON-COMPLIANCE**

Board of Patent Appeals and Interferences  
Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted timely herewith is the Applicant's Resubmitted Appeal Brief, in triplicate, in the above-identified appeal. The Appeal Brief fee was earlier paid.

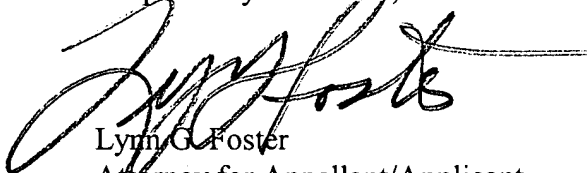
In full response to the Notice of Non-Compliance with 37 CFR 1.192(c), the Resubmitted Appeal Brief differs from the earlier Appeal Brief that:

- (a) a concise explanation of the claimed invention, with specification and drawing references included; and
- (b) the length of the identification of issues of present on appeal has been shortened, without compromising any issue.

The Applicant believes the argument as to why the claims do not stand or fall together is more than adequate, i.e. the claim limitations are not the same.

Kindly charge the cost of any additional small entity fee, Deposit Account 06-1620. A copy of this document is enclosed.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Board of Patent Appeals and Interferences, Commissioner for Patents, P.O. Box 1450, Arlington, VA 22313-1450 on March 4, 2004.



Lynn G. Foster

2004\Combustion\8333.Appeal.Trnsmtl.Ltr

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
THE BOARD OF PATENT APPEALS AND INTERFERENCES



re Patent Application of:

Craig N. Eatough, et al.

Serial No.: 09/954,603

Filed: September 17, 2001

For: CLEAN PRODUCTION OF COKE

Docket: 8333.Appeal

Art Unit: 1764

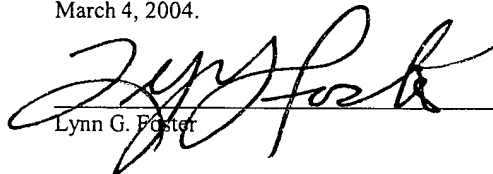
Examiner: Alexa A. Doroshenk

**RESUBMITTED APPEAL BRIEF**

Mail Stop Appeal Briefs – Patents  
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P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

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Lynn G. Foster

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## AUTHORITIES

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### STATUTES:

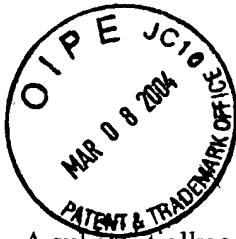
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## **THE NATURE OF THE APPENDIX**

A substantially comprehensive Appendix of relevant documents of record, including a clean copy of the appealed claims, is provided herewith as an aid to the Board of Patent Appeals and Interferences (Board). Each reference to the Appendix contained in this Brief is by page number. For example, a reference in this Brief to the second page of the Appendix is designated "A2."

## **BASIS OF THIS APPEAL**

The basis of this appeal is 37 CFR §1.191(a).

The Office Action from which this appeal is taken is found at A12, while the subsequent Advisory Action is at A9.

## **REAL PARTY IN INTEREST**

The real party in interest is Combustion Resources, L.L.C., the assignee.

## **RELATED APPEALS AND INTERFERENCES**

There is no related appeal.

## **STATUS OF THE CLAIMS**

Claims 32 through 69 are on appeal (A1-A8). No claim has been allowed or canceled. All claims are rejected.

## **STATUS OF AMENDMENTS**

The Amendment (A66) sent by facsimile on September 19, 2003 has not been entered.

## **STATUS OF DECLARATIONS**

The Declaration of L. Douglas Smoot, Ph.D. is of record.

## **SUMMARY OF THE INVENTION**

The present invention comprises closed system apparatus and processes by which carbon

feedstock (10, 12), comprised of a mixture of non-coking coal (10) and/or another carbonaceous material (12), such as waste coke fines, are mixed together (at 16) and pyrolyzed (at 20) into coke either as solid pieced or not (at 22). When solid pieces or objects of the mixture are formed, they are fired through pyrolyzation into solid pieces of coke, with solid and/or liquid and gaseous by-products (at 24) of pyrolyzation being recycled (at 30, 32) for use within the closed coke-producing system, thereby eliminating release of undesirable substances to the atmosphere. Feedback tars, with or without a char-forming binder, is added (at 34) to the carbon mixture (at 16) prior to pyrolyzation. Specification page 2, lines 3-11.

### **The Inventors' Problem**

The Applicants' main problem comprised finding an inexpensive, cost effective way to use non-traditional low quality, readily-available carbonaceous materials to obtain high quality coke. Furthermore, the Applicant addressed the problem of meeting or exceeding EPA standards using non-prime, non-traditional carbonaceous materials to produce coke.

For decades, coke fines have been a discarded by-product from traditional processes for obtaining coke from coking coals. Coke fines are typically stored as essentially worthless landfill.

By way of background:

1. The cost of producing coke, using traditional technology, is significantly escalating because:
  - a. The supply of good quality coking coals is progressively significantly decreasing and mining of the same is steadily more difficult and more expensive;

b. Old style plants are closing because they are too costly for production and maintenance and some require costly upgrades to meet ever more stringent EPA and other governmental standards;

c. Coke obtained from old style plants still in operation are expensive and sometimes the quality is inferior;

d. Newer form coke plants, only a few of which exist, are not cost effective, require sale of low priced excess by-products to obtain a positive cash flow and typically produce less than prime coke.

2. None of the prior processes reclaim coke fines as a primary feedstock.

3. None of the prior processes are self contained or entirely closed, in terms of full internal recycled utilization of tar and off-gas by-products.

4. None of the prior processes use inexpensive low grade coal as a major element of carbonaceous feedstock, nor do they use discarded waste coal fines, which traditionally are stored in slurry ponds or as landfill.

As pointed out in greater detail below, none of the prior art patents applied anticipate or make obvious the present invention, which is an extra-ordinary advance in the art, overcoming decades when an unsatisfied major need existed for high quality coke from low quality, far less expensive carbonaceous material.

### **The Inventors' Solution**

The Applicants have solved their problem in a remarkable and non-obvious way, which constitutes a breakthrough of major proportions in the coke producing art, by which coke fines, as a major feedstock component, and low grade coke fines, as a second major feedstock component are

mixed and processed to obtain high quality coke. Neither of the two major feedstock components are washed, elutriated, dried and segregated before being pyrolyzed.

Surprisingly, the cost of producing coke using the present invention, at filing, was estimated as being within the range of \$50-60/ton, compared to current metallurgical coke prices in the range of \$100-120/ton and foundry coke in the range of \$140-160/ton, with coke from the present invention having greater strength, greater density and low reactivity.

### **§112 Compliance**

While disclosed in positive terms, it is clear that the present invention does not mandate washing of the feedstock comprised of coal and coke fines, nor is elutriation used as the fines are transformed into coke. A cursory inspection of the drawings alone confirms this important point. No washing or elutriation is shown.

It is to be appreciated that the critical language of the claims embrace negative limitations and, therefore, does not parrot the positive language in the specification. One skilled in the art understands the negative claim recitations are based upon the specific positive disclosures in the specification.

### **Misconstruction of the Prior Art Mandated the Negative Limitations**

In the initial substantive Office Action, the prior art was misconstrued, as explained herein in greater detail, which made insertion of the negative limitations into claims essential to show the basic irrelevance of the prior art. The prior art is complex and mandates washing and elutriation. The prior art earlier applied to the claims has been withdrawn.

## **GROUPING OF CLAIMS**

The appealed claims (Claims 32 through 69) to a very large extent do not stand or fall together, although some of the required analysis by the Board may be collective. However, because the claims have limitations, the scope of which varies from claim to claim, independent determination by the Board is needed regarding patentability of the various limitations of the appealed claims under §112.

For broad §112 purposes, a number of claims can and will be grouped and analyzed together. However, when a more focused analysis is required little, if any, grouping can take place. In the sections of this Brief which follow, the grouping of certain claims occurs, for purposes of argument only. Nevertheless, the Board is asked to rule separately on the patentability of each appealed claim.

## **THE ISSUES**

1. Does the use of negative limitations in pending claims based upon positive disclosures satisfy the written description requirement?
2. Does the non-washing and non-elutriation claim limitations have a legally sufficient antecedent basis in the specification?
3. Did the Examiner meet her *prima facie* burden to show lack of written description or did she look for identical language in the specification and claims?
4. Did the Examiner reversibly err in: (a) failing to meaningfully consider and give an appropriate weight to Appellants' evidence concerning the §112 written description requirement; (b) in refusing to start anew and weigh the Examiner's evidence against Appellants' evidence rather than to pit Appellants' evidence against the Examiner's earlier

conclusion; and (c) in relying on her §112 notions, which are not evidence, in wanton disregard of highly relevant and competent evidence of the Applicants?

5. Was the Second Office Action prematurely made final?

6. Where the adequacy of the written description is, as a matter of law, a question of was the Declaration as to the adequacy of the written description improperly disregarded as a legal opinion?

### **THE WRITTEN DESCRIPTION 35 USC §112 FIRST PARAGRAPH REJECTION**

The Examiner finally rejected all of the appealed claims as follows:

Claims 32-69 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter not described in the application as filed is that directed toward “unwashed” and/or “non-elutriated” coal or coke fines. Applicant has added this subject matter to all independent claims (32, 41, 50, 61, 63, 67 and 68) by amendment. Since such subject matter was not described or conveyed in the application as filed, doubt is raised as to possession of the claimed invention at the time of filing (A14).

### **THE 35 USC §112 SECOND PARAGRAPH REJECTION**

The Examiner finally rejected Claim 50 as follows:

Claim 50 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite or failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 is unclear as to what applicant intend to claim by the phrase “on the one hand” and “on the other hand.”(A15)

### **THE ADVISORY OFFICE ACTION**

Essentially denying the Applicants their unqualified right to respond to a rejection asserted

for the first time in the final rejection and ignoring a §112 written description Declaration, the Examiner, in an Advisory Action (A10, A11) after finally stated:

\* \* \* \*

2. The proposed amendment(s) will not be entered because:
  - (a) they raise new issues that would require further consideration and/or search (see NOTE below);

\* \* \* \*

5. The . . . affidavit. . . has been considered but does NOT place the application in condition for allowance because; See Continuation Sheet.

\* \* \* \*

Continuation of 5. does NOT place the application in condition for allowance because: the affidavit is not persuasive in that Smoot, who is a part owner/assignee of the application, is giving a legal opinion of the sufficiency of the disclosure. From paragraph 6 of the declaration: “I conclude, as one having skill in this art, that there is no disclosure of washing or elutriating of the fines being displaced using the equipment and methodology disclosed to produce coke. Thus, in my opinion, it is correct to say the limitations of the “unwashed” and “non-elutriated” in the claims are properly supported by the present specification because the fines displacement are neither washed nor elutriated.” (Emphasis added.)

### ARGUMENT

#### **THE APPELLANTS BELIEVE THE 35 USC §112 SECOND PARAGRAPH REJECTION IS IN ERROR AND INSUBSTANTIAL**

#### **The Examiner’s §112, Second Paragraph, Rejection**

In the Office Action (A15) being appealed, the Examiner rejected Claim 50 as being indefinite under 35 USC §112, second paragraph.

**The Appellant Believes the §112,  
Second Paragraph, Issue is  
Insubstantial and in Error**

The Appellant believes §112, second paragraph, concerns of the Examiner as to Claim 50 are insubstantial and in error. Since “on the one hand” and “on the other hand” add clarity, the §112 second paragraphs rejections should be withdrawn by the Examiner or reversed by the Board. If the Appellants are in error in their understanding in this regard, the Board or the Examiner is authorized to cancel these phrases from Claim 50.

**THE PRIOR ART INITIALLY RELIED UPON  
MANDATED NEGATIVE CLAIM LIMITATIONS**

The complex prior art, which required washing, drying and elutriation, initially relied upon was misconstrued and misapplied, forcing the Appellants to insert negative limitations into the pending claims to overcome the rejection.

**ANALYSIS OF THE PRIOR ART**

Weber (U.S. 4,352,720) describes a typical form coke process. The process uses dried coal or fine coal mixtures as a feedstock. Mixing coals is necessary to be able to use higher swelling coals with a Free Swelling Index (FSI) of not more than 5, a critical limitation of Weber. The FSI requirement means the coal feedstock of Weber must be high quality and expensive. The use of coke fines is limited to that of a minor additive used only when it is necessary to bring the FSI of the washed, low FSI coal feedstock fuel down to 5 or less from a higher amount. However, Weber does not use coke fine as a major component of the washed coal feedstock.

To better understand the context of Weber’s reference to coke fines, specific reference to Weber will be helpful. At Col. 5, lines 1-13, Weber delineates a main object of his invention:



Accordingly, it is an object of the invention to provide a process for the production of molded metallurgical coke from dried coal or fine coal mixtures with a low swelling index and particularly from highly volatile fine coal comprising mixing normal washed fine coal or fine coal mixtures of a grain size of from 0 to 10 mm and having a swelling index of not more than 5 with a binder, pressing the mixture into a briquette, oxidizing the briquettes in a continuous material flow stream, and coking the oxidized briquettes continuously in an oven chamber by supplying heat indirectly to the chamber and exhausting coke oven gases with a temperature of from 300° to 1200° C. (Emphasized)

From this quotation, it is clear Weber limits the essence of his briquette feedstock to “dried coal or fine coal mixtures” to the exclusion of coke fines. (Emphasized)

Weber, at Col. 5, lines 50-54, further characterizes his technology:

... a process for the production of molded metallurgical coke from dried coal or fine coal mixtures with a low swelling index and particularly highly volatile fine coal. In addition the invention includes a device for carrying out the process. (Emphasized.)

Further, Weber defines his feedstock, at Col. 5, lines 50-61:

An amount of . . . washed fine coal with the following properties: grain size equal to or less than 10 mm, volatile components b 28\$ af, input moisture 10%, ash content 6%. (Emphasized.)

Thus, not only is coke fines excluded by Weber as a fuel per se, but the washed coal fines must be within precise size, volatility, moisture and ash tolerances, making Weber’s fuel expensive, as is the Weber process.

Finally, Weber, in his claims, limits his feedstock to “dried coal or fine coal mixtures with a low swelling index.” Claim 1, lines 2-3.

The Weber briquettes are placed in a vertically-directed three-stage coking chamber to (1) oxidize the briquettes, (2) coke the briquettes, and (3) cool the briquettes. The purpose of oxidation is not clearly outlined in Weber, but may provide some reduction of the FSI. The coking chamber

design and operation appears to comprise the main aspect of Weber's technology. Very little description regarding the actual physical and chemical properties of the fuel delivered to the coking chamber is presented in Weber. An admission is made by Weber that an extra amount of pyrolysis by-products is produced.

The system and methodology proposed by Weber is very complex and not cost-effective. Weber has not been commercialized.

To achieve operability, the coal fines, which may include coal fine mixtures, must be washed and, thereafter, dried as they are elutriated, segregated and mixed with a binder to form green briquettes. These briquettes are oxidized, coked, using a coking oven supplied with indirect heat, and cooled.

Weber's feedstock, after being washed, is fed into wet coal bin 2 and thence elutriated up fly current dryer 5 using a hot gas discharge from the gas generator 10. It is necessary that this drying function leave a water content in the coal of less than 1%.

The coal so delivered through dryer 5 is segregated at sifter 7 with fine coal going into material separator 9, dust arrester 13 and fan 15 with some of the resultant being fed back via line 16 to gas generator 10 and the remainder delivered via line 17 to bag filter 18. Solids from bag filter 18 are delivered to line 25, whereas residual gas is vented to the atmosphere via vent 19. In sifter 7, the larger particles, of the washed and dried coal mix, are delivered to a hammer mill which grinds particles over 3 mm to smaller particles, which are delivered via line 20 to conveyor 27, as is true of the solid particles issuing from material separator 9, dust arrester 13 and bag filter 18 via lines 21, 23 and 25 respectively. The solid particles delivered to conveyor 27 pass by force of gravity into dry coal bin 29, the effluent of which is mixed with binder from source 31 in a mixing

screw 32 and a kneading machine 33 to comprise raw material for double roll press 34 by which green briquettes are formed and conveyed via mechanisms 35, 36, and 37 to hopper 38.

Green briquettes from hopper 38 are selectively passed through lock chamber 39 into a charging bin 40 and thence into an oxygen chamber 41 in which the briquettes slide while being oxidized on the surface by hot flue gas. The hopper 38, the charging bin 40 and the oxygen chamber 41 are stacked along a common vertical axis.

The oxidized briquettes thereafter pass into coking chamber 42, located vertically below the oxygen chamber 41 along the same vertical axis, where indirect heating is used to create hot molded coke at 1,000°C. Weber is largely silent as to exactly what takes place in his coking chamber 42.

The coke briquettes next move into cooler 43, also located along the same vertical axis directly below the coking chamber 42, where the hot molded coke is cooled to 50°C, with the coke briquettes exiting the system via lock chamber 44 and outlet 45.

Crude gases discharged from coking chamber 42 are displaced to the gas-cooling and purification mechanism shown in Figure 2, from which coal tar can be obtained. The tar may be used as a binder in forming the above-mentioned green briquettes. In this regard, attention is directed to Weber at column 7, lines 25 - 30, which states:

“The crude gas obtained during coking is conducted successfully over 69 for cooling as shown in Figure 2 through the three cooling stages 80/81/82 before it is available, after liberation of fine dust in electrofilter 83 and a pressure increase in gas exhauster 84 for drying, oxidation, coking and an access (line 78).”

Weber makes metallurgical coke briquettes from expensive washed coal fines having precise characteristics. The present invention is used to make metallurgical or foundry coke or

smokeless fuels from a variety of inexpensive carbon sources including waste coke fines and waste coal fines and feedback tar to create a fixed carbon binder which holds the fines together.

The Weber process can not use high-ash waste coals since the ash content of the resulting product would not be acceptable.

Weber admits that the Weber process does not operate in a closed system since a “large amount of excess gas” is generated and discharged.

Deering (U.S. 4,530,752) discloses an oil shale retort, which recycles some part of pyrolyzed organic matter to heat the retort to liberate kerogen from the shale. Deering is not directed to coking and may not be used to produce coke. Fuel recycling is common to many processes to consume by-product fuels generated in the main part of the process, thus improving efficiency. Deering describes fuel recycling for an oil shale retort process. In contrast, the fuel recycle of the present invention is used to heat a coking chamber. Deering clearly states “[n]ormally, the fines will be oil shale fines.” While Deering suggests, at Column 8, lines 50-61, that petroleum coke may be used in his shale retort process, that does not teach one of ordinary skill that coke fine mixed with non-prime coal can be used to produce high quality coke. Deering does not expressly disclose use of fines having the FSI mandated by Weber. Bridging the gap between the Weber and Deering technologies would not be obvious to one of ordinary skill. The reliance by the Examiner on Deering is a classic case of hindsight reliance on the present application, since Weber does not disclose the appropriateness of coke fines as an acceptable major feedback material, and Deering limits his technology to the production of oil and gas from shale. Weber and Deering are incompatible and noncombinable.

Nicaud (U.S. 6,043,289) discloses a technology which converts waste plastics into a bitumen base for industrial use. Synthetic petroleum-based bitumens are produced from thermoplastic materials (polyolefins). Thermoplastic materials have a very low fixed carbon (char) content and are not suitable for use (lack utility) as a binder in coke process of the type disclosed in the present application, without substantial alteration. No such alteration is suggested by the art relied upon.

There is no teaching in any of the three references relied upon that any one reference should or could be combined with either or both of the other two references. The proposed combinations by the Examiner do not result from a reading of the references, but are an effort to reconstruct the art beyond anything readily apparent or obvious to one of ordinary skill and are based on confidential access to the contents of the present application.

In short, the prior art initially relied upon teaches significantly away from the substance of the present invention.

**THE PRESENT SPECIFICATION MAKES IT CLEAR  
THERE IS AN ADEQUATE ANTECEDENT BASIS  
FOR “UNWASHED” AND “NON-ELUTRIATED”**

To minimize the analysis required of the Board, the specification discloses other activities exclusive of washing, drying and elutriation of coal and coke fines during the present process.

For ease of presentation, the drawings, reproduced below, clearly disclose a process in which washing, drying and elutriation of fines does not take place.



**THE PREMATURE FINAL IMPROPERLY DENIED THE  
APPLICANTS THEIR LAWFUL RIGHT TO RESPOND  
AND HAVE THE RESPONSE SUBSTANTIVELY CONSIDERED**

MPEP §706 et seq. controls when an Office Action should be made final and when the finality of an Office Action is to be withdrawn.

MPEP §706.07 in pertinent part states:

Before final rejection is in order a clear issue should be developed between the examiner and applicant. To bring the prosecution to as speedy conclusion as possible and at the same time to deal justly by both the applicant and the public. . .

\* \* \* \*

. . . present practice does not sanction hasty and ill-considered final rejections. The applicant who is seeking to define his or her invention in claims that will give him or her the patent protection to which he or she is justly entitled should receive the cooperation of the examiner to that end, and not be prematurely cut off in the prosecutions of his or her case.

\* \* \* \*

The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal. (Emphasis added.)

Here, the Examiner did not withdraw the premature final and did not consider the Applicants' response because she claimed it raised new issues. In fact, the response was to new issues raised by the Examiner for the first time in the final rejection.

In addition, the Examiner refused to withdraw the final and start anew, based upon Dr. Smoot's Declaration, concluding erroneously that Dr. Smoot's written description evidence

pertained to a conclusion (when case law holds the written description requirement to raise a question of fact).

MPEP §716 states:

It is the responsibility of the primary examiner to personally review and decide whether affidavits or declarations submitted under 37 CFR 1.132 for the purpose of traversing grounds of rejection, are responsive to the rejection and present sufficient facts to overcome the rejection.

Similarly, MPEP §716.01 states:

Evidence traversing rejections must be considered by the examiner whenever present. All entered affidavits, declarations, and other evidence traversing rejections are acknowledged and commented upon by the examiner in the next succeeding action. The extent of the commentary depends on the action taken by the examiner. Where an examiner holds that the evidence is sufficient to overcome the *prima facie* case, the comments should be consistent with the guidelines for statements of reasons for allowance. See MPEP §1302.14. Where the evidence is insufficient to overcome the rejection, the examiner must specifically explain why the evidence is insufficient. General statements such as “the declaration lacks technical validity” or “the evidence is not commensurate with the scope of the claims” without an explanation supporting such findings are insufficient.

The premature final on a §112 issue raised for the first time in the final was reversible error.

Failure to enter the last Amendment, to set aside the initial written description rejection and to start anew and the failure to give substantive weight to the Declaration of Dr. Smoot were likewise reversible errors.

**THERE IS NO DISCLOSURE OF WASHING OR  
ELUTRIATING WHICH EQUATES TO “UNWASHED”  
AND “NON-ELUTRIATING” TO THOSE SKILLED IN THE ART**

In compliance with the three disclosure requirements of §112, first paragraph, the primary reference, Weber, discloses a complex process comprising washing of coal, pneumatic drying by



elutriation of the coal and later of the fines and segregation of fines from coarser particles<sup>17</sup> of the feedstock and fed back materials, with all of the coal ending up in a coal bin 29.

In contrast, the written description of the present apparatus and process does not include structure for washing or elutriating feedstock coke and coal fines to obtain high quality, low cost coke, nor method steps for doing so. Thus, under §112, first paragraph, neither the present apparatus nor the present methodology as disclosed is burdened by a requirement to wash or elutriate. To one skilled in the art, as demonstrated by Dr. Smoot, this equates to “unwashed” and “non-elutriated.” For elutriation to exist, a gas would be required to carry the pre-coke fines from place-to-place in the process, which is not the case with the present invention.

**THE EXAMINER COMMITTED SEVERAL REVERSIBLE  
ERRORS IN RESPECT TO APPELLANTS’ EVIDENCE  
PERTAINING TO THE WRITTEN DESCRIPTION REQUIREMENT**

**Introduction**

As pointed out in greater detail below, the Examiner, in order to make proper §112 determinations, where rebuttal evidence is made of record, is duty bound to: (1) meaningfully consider Appellants’ rebuttal evidence; (2) give appropriate weight to Appellants’ rebuttal evidence; (3) weigh Appellants’ rebuttal evidence against the Examiner’s evidence; (4) not weigh the Appellants’ rebuttal evidence against the Examiner’s earlier Office Action conclusions, but to vacate her earlier conclusions and begin anew; (5) not treat her own technical notions as if such were evidence; (6) follow carefully the rules which apply to the analysis required respecting the adequacy of a written description; and (7) carefully analyze and evaluate whether the claim limitations are sufficiently disclosed so as to be understandable to one skilled in the art of coke making, showing the Appellants to have been in possession of the claimed invention at the time of filing.

The Examiner reversibly erred in failing to discharge any of her evidentiary duties as set forth above, greatly to the prejudice of the Appellants. Certainly, there is little, if any, likelihood that the correct §112 evaluation could have been made when, as here, the Appellants' evidence is so badly mishandled, mismanaged, misevaluated, and non-evaluated.

**The Examiner Erroneously Equates  
a Quick Reading of the Declaration of Dr. Smoot  
to Meaningfully Considering the Testimony**

The Appellants presented testimony from Dr. L. Douglas Smoot, who is skilled in the art and presented significant relevant evidence as to the written description issue here. All of this evidence was set to one side, was not considered on its merits, and was not weighed against the minimal evidence provided by the Examiner.

Specifically, Dr. Smoot testified (A29 et seq.) as follows:

3. I have a Ph.D. degree from the University of Washington in Chemical Engineering.
4. I am skilled in the fuels field including the production of coke. My Curriculum Vitae is attached as Exhibit "A."

\* \* \* \*

6. I was asked to study and analyze the foregoing documents to determine if the above-identified application provides a written description of the invention as presently claimed. More specifically, I was asked if the present application discloses an apparatus and a process which comprises equipment and/or methodology by which the fines being displaced are washed or elutriated. I conclude, as one having skill in this art, that there is no disclosure of washing or elutriating of the fines being displaced using the equipment and methodology disclosed to produce coke. Thus, in my opinion, it is correct to say the limitations of "unwashed" and "non-elutriated" in the claims are properly supported by the present specification because the fines displacement are neither washed nor elutriated.

7. The above-identified patent application is directed to a lower cost way of using coal fines, including discarded coal fines, and coke fines, including discarded coke fines, to produce high grade coke.

8. The analysis of Weber (U.S. Pat. No. 4,352,720) found at pages 12-15 of the first Amendment is accurate. Weber discloses an expensive rather than a lower cost way of producing coke. Weber requires expensive equipment by which washed and wet coal from bin 2 is elutriated, by a stream of gas emanating at generator 10, up channel 5 and thence along three paths 20, 21, 23 as dried coal to bin 29.

9. Weber's requirements of washed and wet coal and elutriation of fines are contrary to and contradict the concept disclosed and the limitations of the presently claimed subject matter of the above-identified patent application. Specifically, the present application does not disclose displacing washed and wet coal, nor is wet coal elutriated to dry the same prior to pyrolyzation. The technologies of Weber and the present patent application are very different.

10. Given that the present disclosure, which clearly avoids both washing to create wet coal fines and drying of wet coal by elutriation in the production of coke, it is appropriate to distinguish the claimed subject matter from Weber by use of the terms "unwashed" and "non-elutriated." The concept of "unwashed" and "non-elutriated" is unquestionably part of the initially disclosed subject matter of the above-identified patent application, is so understood by me, and would be so understood by anyone with skill in the art.

11. The drawings of the above-identified application also make it clear that the displacement of fines through the illustrated equipment does not result in washing of displaced fines or in drying of wet fines through elutriation.

The Examiner's abbreviated and non-substantive treatment of Dr. Smoot's testimony cannot withstand close scrutiny and cannot be sustained. Its handling by the Examiner was and remains a reversible error. Specifically, the Examiner summarily discards, with little, if any, substantive evaluation, the Declaration of Dr. Smoot as being a legal opinion (A11):

. . . the affidavit is not persuasive in that Smoot, who is a part owner/assignee of the application, is giving legal opinion on the sufficiency of the disclosure. From paragraph 6 of the declaration: "I conclude, as one having skill in this art, that there is no disclosure of washing or elutriating of the fines being displaced using the equipment and methodology disclosed to produce coke. Thus, in my opinion, it is correct to say the limitations of "unwashed" and "non-elutriated" in the claims are properly supported by the present specification because the fines displacement are neither washed nor elutriated." (Emphasis added.)

To the contrary, whether a patent application's disclosure satisfies the written description requirement is a question of fact, which makes Dr. Smoot's testimony not one per se of legal opinion, but one based upon a factual inquiry. In re Wetheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976); MPEP §2163.04.

As stated in MPEP §2163, @ p. 2100-166;

If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met.

Dr. Smoot is skilled in the art and his Declaration satisfied the §2163 burden recited immediately above. The Examiner, who may not be a witness, is without evidence in support of her contention that the written description is inadequate.

It follows that Dr. Smoot's evidence is conclusive in favor of the Appellants. Dr. Smoot is "skilled" in the art of coke making and came to an understanding through a reading of the application as filed and the presently pending claims that the Appellants were "in possession of the [presently] claimed invention at the time of filing."

In maintaining her anti-written description position, in the absence of a prima facie case and with no substantive evidence in support thereof, and in the face of the evidence of Dr. Smoot, is reversible error.

**The Concept of a Prima  
Facie Case in the USPTO  
is Procedural, Not Substantive**

There is great doubt here as to whether a prima facie case was ever established by the Examiner. In respect to whether the Examiner met her prima facie case or she did not, it is

important to remember that in the USPTO a prima facie case is procedural, not substantive. In In re Piasecki and Meyer, 223 USPQ 785 (Fed. Cir. 1984), the Federal Circuit reiterated the burden of proof standard applicable in the USPTO. While the Piasecki appeal concerned an issue of obviousness, its precedential value applied here as well. It set down burden of proof principles which apply here. Specifically, the Piasecki court, at 787-788, places the initial burden on the Examiner.

The concept of [a] prima facie . . . [case] is but a procedural mechanism to allocate in a orderly way the burdens of going forward and of persuasion as between the Examiner and the Applicant.

\* \* \* \*

. . . As adapted to ex parte procedure . . . the "burden" of proof on the Patent Office.... requires it to produce the factual basis for its rejection of an application..." In re Warner, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967). (Emphasis added.)

Accordingly, the initial §112 written description prima facie conclusions reached by the Examiner must be factually based and, if a prima facie case is made, it merely procedurally shifts the burden to the Appellants. Appellants have conclusively rebutted the Examiner's negative written description position.

**The Examiner Failed to Discard Her  
Position Action and Did Not Begin  
Anew Upon Entry of the Declarations**

Once the USPTO has established a prima facie case, that prima facie case is not conclusive. See In re Smyth, 90 USPQ 106 (CCPA 1951). It merely shifts the procedural burden of proof to the Appellant. See In re Sichert, 196 USPQ 209, 215 (CCPA 1977).

The Applicant discharges that burden by one or more Affidavits and Declarations, as here. See Ex parte George, 230 USPQ 575, 578 (Bd. Pat. App. & Interf. 1986).

Where the Examiner has only personal doubts, technical notions and assertions, but no evidence or sound reasoning, as here, and the Appellants have presented competent evidence showing the written description requirement was met, the Examiner cannot be sustained.

Piasecki, at 778, reaffirms that after the Examiner has established a prima facie case, the burden shifts to the Applicants:

After a prime facie case . . . has been established [by the USPTO], the burden of going forward shifts to the Applicant.

Furthermore, Piasecki at 790, explains both that which is required by the USPTO to create a prima facie case and the duty placed upon the Examiner following submission of rebuttal evidence:

. . . the holding of [a] prime facie . . . [case], being but a legal inference from previously uncontradicted evidence, is dissipated . . . the Examiner must consider all the evidence anew. The process is as stated in In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976):

Restated, here the Examiner's prima facie case, if there was one, disappeared ("dissipated") and the Examiner was duty bound to, in good faith, evaluate all evidence of record "anew," without a pre-existing bias.

The Piasecki court elaborates on the "anew" requirement:

An earlier decision should not, as it was here, be considered as set in concrete, and Applicant's rebuttal evidence then be evaluated only on its knockdown ability. Analytical fixation on an earlier decision can tend to provide that decision with an undeservedly broadened umbrella effect.

\* \* \* \*

We find that the majority of the Board did not evaluate the affidavits and the other rebuttal evidence in accordance with accepted evidentiary procedure as described in Rinehart . . . (Emphasis supplied.)

The requirements of Piasecki and Rinehart were wholly disobeyed by the Examiner in her haste to sustain her prior negative written description conclusion. The Examiner's language confirms that she (a) left her earlier decision in place, as if set in concrete, and (b) did not start anew to evaluate the evidence objectively. To the extent she evaluated the rebuttal evidence she did not do so objectively against her evidence, but against her erroneous §112 conclusion left in place as an insurmountable obstruction to patentability. The Examiner stated: "the affidavit [sic, declaration] . . . is not persuasive. . ."

If the Examiner had correctly "dissipated" her initial §112 conclusion and started "anew," there would have been no "rejection" to "persuasively" overcome. Failure, here, to dissipate and start anew is reversible error. Failure, here, to weigh the rebuttal evidence against the lack of evidence of record from the Examiner was also reversible error.

**The Declaration  
Was Not Given Weight**

Instead of seriously evaluating and giving substantive weight to Appellants' evidence, the Examiner brushed to one side the Declaration of Dr. Smoot with abject silence, as to Appellants' written description evidence.

What other remedies were available to the Appellants to overcome the Examiner's ill-founded §112 position? In fact, the Appellants did exactly as instructed in the MPEP. MPEP §2163, @ p. 2100-171, states:

Upon reply by applicant, before repeating any rejection under 35 U.S.C. § 112, para. 1, for lack of written description, review the basis for the rejection in view of the record as a whole, including amendments, arguments, and any evidence submitted by applicant. If the whole record now demonstrates that the written description requirements is satisfied, do not repeat the rejection in the next Office action. If the record still does not demonstrate that the written description is adequate to support the claim(s), repeat the rejection under 35 U.S.C. § 112, para. 1, fully respond to applicant's rebuttal arguments, and properly treat any further showings submitted by applicant in the reply. When a rejection is maintained, any affidavits relevant to the § 112, para. 1, written description requirement, must be thoroughly analyzed and discussed in the next Office action. See *In re Alton*, 76F.3d 1168, 1176, 37 USPQ2d 1578, 1584 (Fed. Cir. 1996).

These controlling instructions were wholly ignored by the Examiner.

A review of the case of *In re Alton*, 37 USPQ2d 1578 (Fed Cir. 1996) may also be helpful.

This case, in the context of a written description issue, confirms the Examiner's prima facie burden and the need for one or more declarations to rebut the prima facie case.

In the *Alton* case, after a rejection for failure of the specification to adequately describe the subject matter of the claims, the applicant submitted a declaration from a technical expert. The declaration was directed to whether the specification described what was claimed to one skilled in the pertinent art.

Regarding the declaration, the court noted that "it is well settled that the question of whether a specification provides an adequate written description of the subject matter of the claims is an issue of fact." *Id* at 1174. Accordingly, the court remanded the case to the Board on the basis of two errors, namely: (1) the Examiner and the Board failed to properly consider the declaration as fact evidence on a factual issue, and (2) the Examiner and the Board failed to articulate adequate reasons for the written description rejection in view of the declaration.



Accordingly, under the *Alton* case, submitting a declaration from a technical expert is an effective way of overcoming an adequate written description rejection. The Examiner (and Board) must consider such evidence as fact evidence on a factual issue. Indeed, in light of such a declaration, the Examiner will not be permitted to rely on conclusory statements and must articulate adequate reasons as to why one skilled in the art would not understand that the inventor was possessed of the invention at the time the application was filed.

As stated in Stratoflex Inc. v. Aeroquip Corporation, 218 USPQ 871 (Fed. Cir. 1983):

It is jurisprudentially inappropriate to disregard any relevant evidence on any issue in any case, patent cases included. (Emphasis added.)

**THE EXAMINER COMMITTED REVERSIBLE ERROR IN  
FUNDAMENTALLY DISREGARDING APPELLANT'S HIGHLY  
RELEVANT AND EXTRAORDINARILY COMPETENT  
EVIDENCE IN RESPECT TO THE WRITTEN DESCRIPTION REQUIREMENT**

**The Examiner Gave Substantive  
Silence in Response to the  
Written Description Testimony**

As pointed out above, the Examiner made no substantive analysis whatsoever concerning Appellants' written description in her Advisory (A9).

Thus, the Examiner gave no substantive consideration at all and no meaningful weight to Appellants' written description evidence. This is not only reversible error, standing alone, but directly violates requirements mandated by the Manual of Patent Examining Procedure (MPEP).

**MPEP §716.01 Was Ignored**

The duties imposed under MPEP §716.01 were wholly ignored by the Examiner and her silence to Appellants' primary considerations evidence. MPEP §716.01 states:

Where an examiner holds that the evidence is sufficient to overcome the *prima facie* case, the comments should be consistent with the guidelines for statements of reasons for allowance. See MPEP §1302.14. Where the evidence is insufficient to overcome the rejection, the examiner must specifically explain why the evidence is insufficient. General statements such as "the declaration lacks technical validity" or "the evidence is not commensurate with the scope of the claims" without an explanation supporting such findings are insufficient. (Emphasized.)

If general statements are inadequate, substantive silence, as here, is worse, by several orders of magnitude.

**Case Law Mandates Consideration  
and Weight be Given to Appellants'  
Written Description Evidence**

Failure to consider and weigh at all Appellants' evidence showing a satisfactory written description was reversible error. Note Ex parte Ohsaka, 2 USPQ 2d 1461, 1462 (Bd. App. 1987), which states:

The flaw with his approach is that the examiner has, in practical effect, converted a rebuttable presumption into a conclusive or irrebuttable presumption . . . . The examiner incorrectly reverts [leaves in place here] to his initial conclusion . . . . finding the declaration evidence unconvincing [not worthy of analyzing here] . . . . As stated in In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). "When . . . [a] prime facie . . . [case] is established and evidence is submitted in rebuttal, the decision-maker must start over . . . . An earlier decision should not, as it was here, be considered as set in concrete." Again, as stated in In re Piasecki, 745 F.2d 1468, 142, 233 USPQ 785, 788 (Fed. Cir. 1984) "the examiner must consider all of the evidence anew." (Emphasis provided.)

Patentability decisions cannot be based on arguments or interpretation out of context and for which there is no factual basis of record. They cannot be based on substantive silence in response to significant §112 evidence. The requirement for a factual basis is as binding on the USPTO as it is on the Applicants. As stated in Carl Schench, A.G. v. Nortron Corp. 218 USPQ 698, 700 (Fed. Cir. 1983):

. . . arguments and interpretations . . . cannot, however, supplant the presentation of testimony from qualified witnesses . . . (Emphasis added.)

The Examiner has arguments (albeit extreme ones), but not evidence. The Appellants have extraordinarily credible evidence and sound, binding case law based upon the evidence, demonstrating the existence of an adequately disclosed presently claimed invention.

Thus, if the procedural burden somehow shifted to the Appellants, Appellants have unequivocally met their rebuttal burden and dissipated the Examiner's prima facie case, if any existed. The appealed claims are adequately disclosed.

### CONCLUSIONS

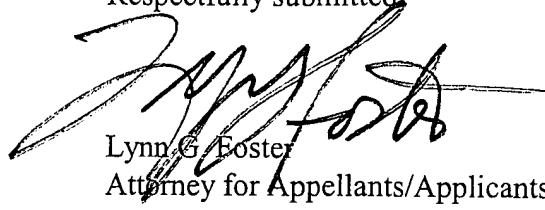
Here the USPTO has no factual or legal basis to support its §112 written description rejection of the appealed claim. If the Examiner ever had a prima facie written description basis for the §112 rejection, it was irrevocably dissipated by the extremely relevant written description evidence provided by Dr. Smoot. Clearly, the Appellants have demonstrated that the presently claimed invention was described sufficiently in the specification that one skilled in the coke making art can and did reasonably conclude that the inventors had possession of the presently claimed invention at the time of filing.

The §112 first paragraph rejection cannot be sustained, for the reasons set forth above. The Board is respectfully requested to reverse the final first paragraph §112 rejection of the appealed Claims and pass this case to issue.

**REQUEST FOR ORAL HEARING**

Appellant requests an oral hearing.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Lynn G. Foster', is written over the typed name and title.

Lynn G. Foster  
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